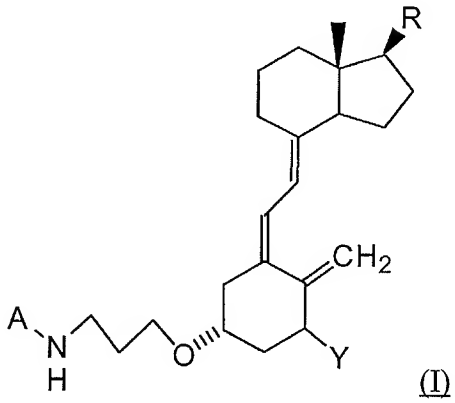
AMENDMENTS TO THE CLAIMS

1. (**Currently Amended**) A method of measuring the amount of a 25-hydroxy vitamin D metabolite, ~~or~~ 1α,25-dihydroxy vitamin D metabolite or both in a sample using a competitive protein binding assay, wherein displacement of a vitamin D derivative from a vitamin D binding protein is measured and the vitamin D derivative displaces a 25-hydroxy- or 1α,25-dihydroxy vitamin D metabolite from the vitamin D binding protein,

wherein a displacement efficiency of approximately 1 is obtained by using ~~comprising measuring binding to or displacement from a vitamin D binding protein of~~ a vitamin D derivative of ~~the~~ formula (I):



(I)

wherein:

R represents a 25-hydroxylated side-group of vitamin D_2 or of vitamin D_3;

Y represents hydrogen or hydroxy;

A represents a functional group, coupled via a spacer group, ~~which can be bound by a protein with high affinity~~ selected from the group consisting of biotin, digoxigenin, amino acids, characteristic amino acids and peptide sequences, FITC, proteins, peptide groups, protein-A, protein G and vitamin D derivatives;

obtained by a method comprising:

a) cyanoethylating the 3-hydroxy group of a vitamin D starting compound in the presence of potassium hydride and tertiary butanol;

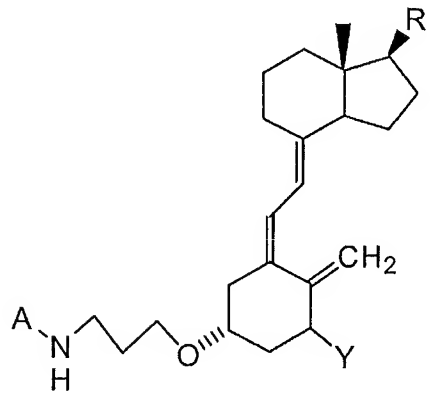
b) adding lithium hydride and converting the 25-hydroxy group into the lithium alcoholate and subsequently reducing the nitrile group with lithium aluminium hydride; and

c) linking a spacer group selected from amino carboxylic acid radical and amino polyether radical, ~~p~~together with a functional group A on the resulting amino propylether side chain.

2. (**Original**) The method of claim 1, wherein the method is a competitive immunoassay, selected from the group consisting of radioimmunoassay, enzyme immunoassay enzyme-linked immunosorbent assay, luminescence immunoassay and fluorescence immunoassay.

3. (**Original**) The method of claim 1, wherein the method is sandwich immunoassay, selected from the group consisting of immuno radiometric assay, IEMA/EIA, immuno luminometric assay and immunofluorometric assay.

4. (**Currently Amended**) A kit for detection of 25-hydroxy- and 1α/25- dihydroxy vitamin D metabolites on basis of a competitive protein binding assay, wherein displacement of a vitamin D derivative of the formula (I) from a vitamin D binding protein is measured and the vitamin D derivative displaces a 25-hydroxy- or 1α,25-dihydroxy vitamin D metabolite from the vitamin D binding protein, comprising a standardized quantity of solid vitamin D derivative of formula (I) or a standardized solution of a vitamin D derivative of ~~the~~ formula (I):



(I)

wherein:

R represents a 25-hydroxylated side-group of vitamin D_2 or of vitamin D_3;

Y represents hydrogen or hydroxy;

A represents a functional group, coupled via a spacer group, selected from the group consisting of biotin, digoxigenin, amino acids, characteristic amino acids, peptide sequences, FITC, proteins, peptide groups, protein-A, protein G and vitamin D derivatives, which can be bound by a protein with high affinity;

wherein the vitamin D derivative is obtained by a method comprising:

a) cyanoethylating the 3-hydroxy group of a vitamin D starting compound in the presence of potassium hydride and tertiary butanol;

b) adding lithium hydride and converting the 25-hydroxy group into the lithium alcoholate and subsequently reducing the nitrile group with lithium aluminium hydride; and

c) linking a spacinger group, selected from amino carboxylic acid radical and amino polyether radical, together with a functional group A on the resulting amino propylether side chain.

5. **(Original)** The kit of claim 4, wherein the spacing group has the length of 0.9 to 1.5 nm.

6. **(Original)** The kit of claim 4 wherein A is a biotin group and the spacing group has the length of 0.9 to 1.5 nm.

7. **(Original)** The kit of claim 4 comprising a solid phase selected from the group consisting of a microtitration plate, another solid carrier, a microparticle, a polymeric material, and a cellulose.

8. **(Original)** The kit of claim 7, in which the solid phase is a microparticle comprising agarose.

9. **(Original)** The kit of claim 7, in which the solid phase is a magnetic microparticle.

10. **(Canceled)**

11. **(New)** The method of claim 1, wherein said competitive protein binding assay is selected

from the group consisting of an enzyme immunoassay, an enzyme-linked immunosorbent assay, a radio immunoassay, an immunoradiometric assay, a luminescence assay, a fluorescence immunoassay and an immunofluorometric assay.